REMARKS

Claims 1-13, 18 and 20-23 are pending, with claims 1, 2, 3 , 5, 6, 8-12, 21 and 22 having been rejected, claims 4, 7, 13 and 23 having been objected to, and claims 18 and 20 having been allowed. The rejection is traversed.

The Rejected Claims are Patentable over Duke et al.

Claims 1, 8-12 and 21-22 were rejected under 35 USC § 102(b) as being anticipated by US Patent No. 3,577,017 issued May 4, 1971 to Duke et al. Claims 2, 3, 5 and 6 were rejected under 35 USC § 103(a) as being obvious over Duke et al. The rejections are traversed.

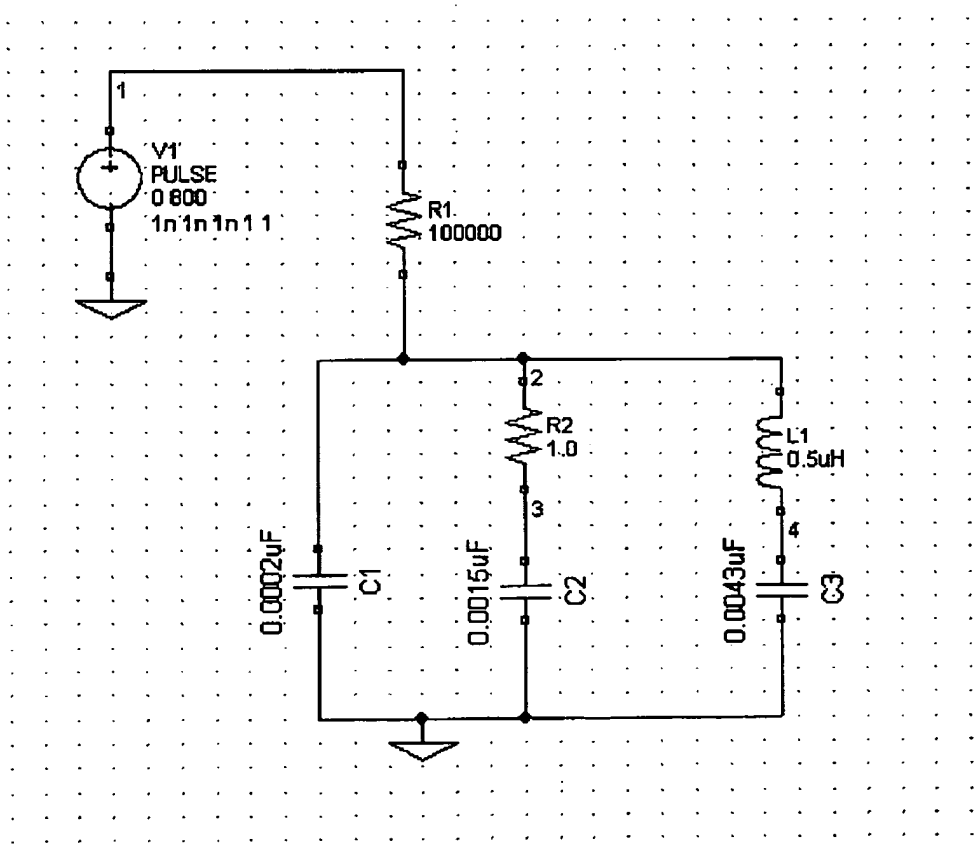
The independent claim at issue in the rejection is claim 1. As the examiner will recall, the Request for Continued Examination filed on October 18, 2008 was accompanied by an amendment in which independent claim 1 and dependent claim 13 were amended in an attempt both to comply with the examiner's desire for clarity while preserving applicants' intentions. Specifically, these claims were amended to provide that the capacitive energy storage elements are operatively charged to their respective voltage magnitudes, and the laser diode is controllably coupled to the capacitive energy storage elements for operatively receiving a discharge of energy therefrom. As applicants explained in the Remarks on page 10, this change was made to address the examiner's concern that in the earlier version of the claim, the capacitors needed only to have the physical ability to be charged to the stated magnitude. As made clear by the amendment, the first and second voltage magnitudes refer to the voltage on the respective capacitors before discharge.

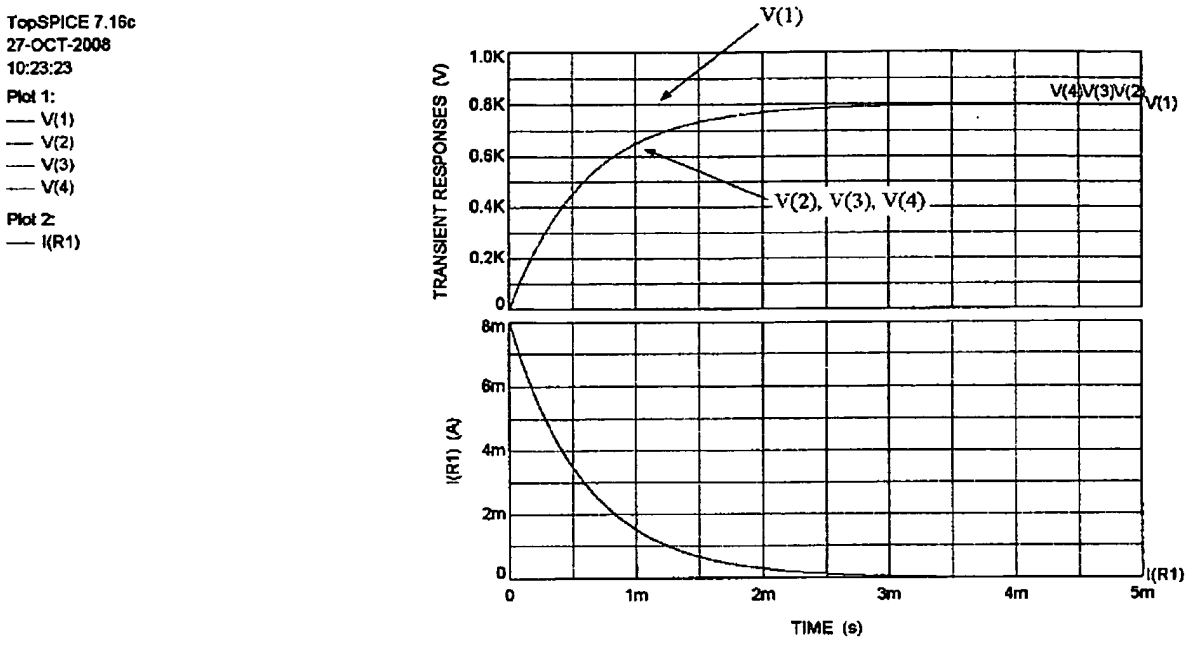
In rejecting claim 1 under 35 USC § 102(b) as being anticipated by Duke et al., the examiner argues that the voltage across C1 would be greater than across C2 due to the voltage drop across series resistor R2. However, the specific relationship upon

which the examiner bases this argument is irrelevant to the claimed invention. The examiner is basing his argument on the voltage across C1 and C2 while they are being charged. Claim 1, on the other hand, does not concern the voltage across capacitors during the charging cycle. Rather, the limitation of claim 1 concerns the voltage across capacitors after the charging cycle, i.e. when they are operatively charged.

When the relevant teachings of Duke et al. are considered, one can easily see that the voltage across C1 and C2 are in fact equal. The relevant teachings are when the charging is complete. At this time, the voltage across C1 would equal C2 because the charging current would be zero.

This fact is reconfirmed when the circuit disclosed in Duke et al. is analyzed using SPICE simulation. The circuit and the simulation graph were as follows.





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The graph shows two curves, one being the voltage at nodes 1, 2, 3 and 4 and the other being the charging current. The voltage at all the nodes became exactly equal to the voltage at node 2 because the charging current decayed to zero. The peak charging current, which is 800 volts (V1) divided by the charging resistor of 100,000 ohms (R1), is only 8mA. However, this peak current occurs only during the beginning of the charging cycle, when all the capacitors look like shorts to the charging supply. In summary, all capacitors are charged at the same rate and to the same level. Even if the resistor R2 and inductor L1 were very large, they only determine the rate at which the capacitors are being charged, not the final value.

In rejecting claim 8 over Duke et al., the examiner further argues that diode 8 functions as a switch. Applicants disagree. The examiner is referred to column 1, lines 41-43 of Duke et al, which states that "During the charge cycle, current flows from the voltage supply 6, through RLC network 4 and charging diode 8." In other words, the

diode used by Duke is a simple charging diode. In fact, a charging diode can be replaced by a resistor. If a resistor can perform the same function during the charge cycle, then the diode cannot be acting as a switch because a resistor is not a switch.

In rejecting claims 2, 3, 5 and 6 under 35 USC § 103(a) as being obvious over Duke et al., the examiner argues that it would have been obvious to one of ordinary skill in the art to use multiple charge sources instead of the single source of Duke et al., in order to allow for a higher degree of control over the amount of voltage applied to each part of the driving circuit. Applicants traverse. The cornerstone of the examiner's rejection is the finding of a motivation for a "higher degree of control" which leads to a multiple charge source solution. However, the examiner cites no authority for any such motivation or for the multiple charge source solution. Moreover Duke et al. appears entirely satisfied with the results achieved, which weighs against a suggestion of any such motivation.

To the extent that the examiner's comments may be taken as an assertion of what is common knowledge, applicants hereby traverse pursuant to MPEP § 2144.03, Eighth Edition, Rev. 2, May 2004, page 2100-138.

Conclusion

The application is patentable over Duke and is otherwise in condition for allowance. Applicants respectfully request favorable reconsideration and the timely issuance of a Notice of Allowance.

Respectfully Submitted,
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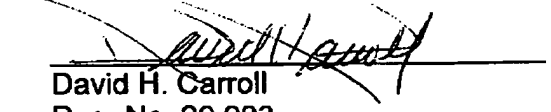

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